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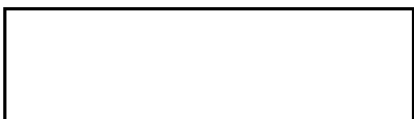
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EIGHTH MONTHLY NARRATIVE REPORT

15 March 1965

REFERENCE



REPORTING INTERVAL

10 February 1965 - 10 March 1965

OBJECTIVE

The objective of this program is the design, construction, and testing of a prenormalizing system to be used for problems of automatic target identification on aerial imagery. The pre-normalizer will scan the image and, by special filtering techniques, produce a set of measurements which have minimal change with translation and rotation of the specific image on the scene. Testing is to be accomplished on the CONFLEX I Adaptive Recognition System.

STATUS OF ACTIVITIES AND ACCOMPLISHMENTS

THE PRENORMALIZING SYSTEM

The Scanning System. During this interval, the scanner has been assembled and wired and is in the final debug phase. The principal factors of concern in this stage are the optical alignments and dynamic balancing of the 3600 rpm drum. Except for a slight delay experienced because of shop scheduling in the previous interval, progress has been satisfactory.

The Filter Bank. The 400 secondary filters have been tuned, installed, and wired in the rack. The 20 preliminary filters are now being wired on boards to be installed in the system.

Interface with CONFLEX I and Readout Display. The debug operation on the completed electronic sensory field and associated display is still under way and progressing well. Only a few weak transistors have been found which did not satisfy the sensitivity requirements for the display.

Summary. As may be noted from the previous paragraphs, the assembly is virtually complete. The debug operations are under way and will continue into the next interval, at which time testing with imagery will begin.

EXPERIMENTAL SCHEDULE

Some preliminary experimental scheduling has been made, and a great deal of effort has been given to the problem of acquiring appropriate aerial imagery. This effort will continue into the next reporting interval.

AUTOMATIC TARGET-RECOGNITION CONFERENCE

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[redacted] attended the Automatic Target-Recognition Conference held at Aeroneutronics in Corona Del Mar, California, on March 11 and 12, 1965. The attending investigators presented material which basically covered the last eight months of research effort in the field. [redacted] presented a summary of the recently completed work with GIMRADA and the Air Force in addition to mentioning the current bread-board hardware.

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TIME SPEND ON PROJECT (CUMULATIVE TOTAL)

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160 hours

463 hours

TECHNICAL AGREEMENT MADE

None

DIFFICULTIES ENCOUNTERED

None

PROGRAM FOR THE NEXT INTERVAL

During the next interval, the final debugging operations will be completed and initial experimental testing will begin. The experimental schedule will be completed and presented for possible modifications. The sponsor will be informed of important developments which may occur during this interval.

Submitted by

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